Filing Date: March 9, 2004

Title: AUTOMATIC TURN-ON AND TURN-OFF CONTROL FOR BATTERY-POWERED HEADSETS

Page 2 Dkt: 1700.002US2

## **IN THE SPECIFICATION**

Please amend the specification as follows:

Please amend the paragraph beginning at page 3, line 19:

However, if the signal indicates that the earcup has been engaged with the head of the user, mode-control circuit 120 enables or activates ANR circuitry 140 to control or otherwise affect the perceived acoustic energy within earcup 110. This generally entails ANR sensor 120 outputting an electrical signal representative of acoustic energy within earcup 110 to the ANR circuitry. In turn, the ANR circuitry processes the electrical signal and outputs a responsive electrical signal to ANR driver 140. ANR driver 140 driver 160 ultimately produces an acoustic signal intended to cancel, suppress, or otherwise alter the acoustic energy within earcup 110.

Please amend the paragraph beginning at page 5, line 1 as follows:

Figure 2 shows a second exemplary embodiment of an ANR headset 200 including an automatic mode control feature in accord with the invention. (Figure 2 omits earcups for clarity.) Headset 200 includes an ANR microphone 140, ANR circuitry 150, an ANR driver 160, and implements automatic mode control using a turn-off circuit 130a, a turn-off circuit 130b, and a power switch 130c. Turn-off circuit 130a is responsive to signals from ANR microphone 140 to control power switch 130c, and turn-on circuit 130b is responsive to signals from ANR driver 160 to control the power switch. Thus, unlike headset 100 in the first exemplary embodiment, headset 200 omits a dedicated mode sensor, and instead uses ANR driver 160 and microphone 130 as respective headset engagement and headset disengagement sensors.

Please amend the paragraph beginning at page 5, line 10 as follows:

More specifically, engaging earcup 110 with the head of a user generally results in an appreciable mechanical deflection of ANR driver 150, driver 160, which responsively outputs an appreciable electrical signal to turn-on circuitry 130a. If the signal exceeds a threshold, turn-on circuitry 130a activates power switch 130c, thereby providing power to ANR circuitry 150.

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Please amend the paragraph beginning at page 5, line 15 as follows:

On the other hand, after engagement, the earcup and surface 111 define a substantially closed volume that changes with user movements, such as head and jaw movements and the pulsating flow of blood through the confronting surface. In turn, these volume changes cause momentary pressure changes within the earcup, which are generally inaudible low-frequency events correlated only to engagement of the earcup with surface 111. In response to these events, microphone 130 microphone 140 produces a low-frequency electrical signal which turn-off circuitry 130b monitors. If the turn-off circuitry detects that this signal is absent for a sufficient period of time, such as 2 or 3 or 5 or more minutes, it deactivates power switch 130c.

Please amend the paragraph beginning at page 7, line 6 as follows:

In operation, ANR microphone 140 senses pressure within earcup 120. earcup 110. When engaged with each other earcup 110 and surface 111 defines a substantially closed space with a volume that changes with user movements, such as head and jaw movements and the pulsating flow of blood through surface 111. In turn, these volume changes cause momentary pressure changes within the earcup, which are generally inaudible, low-frequency events. On the other hand, when disengaged from surface 111, earcup 110 is not pressed against surface 130 and thus no longer defines a volume subject to user movements. Thus, microphone 140 generally provides preamplifier 410 a signal with low-frequency content that changes during engagement of earcup 110 with surface 130 and that remains relatively constant after disengagement.